

What is claimed is:

1. A sealant for a liquid crystal display cell comprising a cured matter of a composition for a liquid crystal display cell sealant, wherein said cured matter has a water absorption coefficient of 2 mass % or less.
2. The sealant for a liquid crystal display cell as described in claim 1, wherein the moisture permeability in passing through the cured film having a thickness of 100  $\mu\text{m}$  at 80°C is 200  $\text{g}/\text{m}^2 \cdot 24$  hours or less.
3. The sealant for a liquid crystal display cell as described in claim 1 or 2, wherein the liquid crystal brought into contact with the sealant at 145°C for one hour in a proportion of one mass part of the liquid crystal to 0.1 mass part of the sealant has a specific resistance value which is 250 times or less as large as a specific resistance value of the liquid crystal before brought into contact therewith.
4. The sealant for a liquid crystal display cell as described in claims 1 to 3, which comprises a cured matter of an epoxy resin cured with a curing agent comprising at least one selected from polyphenol compounds, polyphenol resins and esterified products

thereof.

5. The sealant for a liquid crystal display cell as described in claim 4, wherein a curing accelerator comprising at least one selected from alkylurea derivatives and phosphazene compounds is used.

6. A composition for a liquid crystal display cell sealant comprising an epoxy resin (1), a curing agent (2) comprising at least one selected from polyphenol compounds, polyphenol resins and esterified products thereof and a curing accelerator (3) comprising at least one selected from alkylurea derivatives and phosphazene compounds.

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7. The composition for a liquid crystal display cell sealant as described in claim 6, comprising 20 to 88.9 mass parts of the epoxy resin (1), 10 to 50 mass parts of the curing agent (2) comprising at least one selected from polyphenol compounds, polyphenol resins and esterified products thereof and 0.1 to 20 mass parts of the curing accelerator (3) comprising at least one selected from alkylurea derivatives and phosphazene compounds.

8. The composition for a liquid crystal display cell sealant as described in claim 6 or 7, wherein an aqueous solution obtained by admixing the composition with the same mass of purified water as that of the composition has an ionic conductivity of 1 mS/m or less.

9. The composition for a liquid crystal display cell sealant as described in claim 6 or 7, wherein a cured matter of the composition has a water absorption coefficient of 2 mass % or less.

10. The composition for a liquid crystal display cell sealant as described in claim 6 or 7, wherein a moisture permeability in passing through a cured film of the composition having a thickness of 100  $\mu\text{m}$  at 80°C is 200 g/ $\text{m}^2 \cdot 24$  hours or less.

11. The composition for a liquid crystal display cell sealant as described in claim 6 or 7, wherein the liquid crystal brought into contact with the sealant at 145°C for one hour in a proportion of one mass part of the liquid crystal to 0.1 mass part of the sealant has a specific resistance value which is 250 times or less as large as a specific resistance value of the liquid crystal before brought into contact therewith.

12. The composition for a liquid crystal display cell sealant as described in claim 6 or 7, further comprising a rubber-like polymer fine particle which has a softening point of 0°C or lower and in which primary particles thereof have an average particle diameter of 5  $\mu\text{m}$  or less in a proportion of 1 to 25 mass % based on the composition for a liquid crystal display cell sealant.

10 13. The composition for a liquid crystal display cell sealant as described in claim 6 or 7, wherein the curing agent is at least one selected from phenol novolak resins, phenol aralkyl resins, naphthol novolak resins, naphthol aralkyl resins, alicyclic compound-modified phenol novolak resins, alicyclic compound-modified naphthol novolak resins, polycyclic aromatic compound-modified novolak resins, polyphenol monomers, polyvinylphenols, vinylphenol copolymers, polyisopropenylphenols, polyisopropenylphenol copolymers, esterified phenol novolak resins, esterified phenol aralkyl resins, esterified naphthol novolak resins, esterified naphthol aralkyl resins, esterified alicyclic compound-modified phenol novolak resins, esterified alicyclic compound-modified naphthol novolak resins, esterified polycyclic aromatic compound-modified novolak resins, esterified poly-

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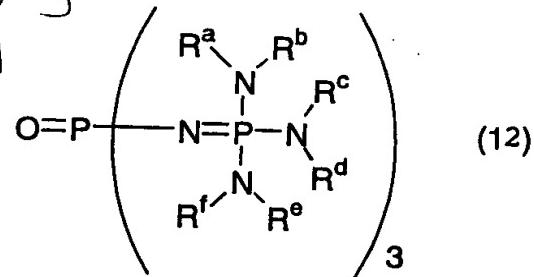
polyphenol monomers, esterified polyvinylphenols, esterified vinylphenol copolymers, esterified polyisopropenylphenols and esterified polyisopropenylphenol copolymers.

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14. The composition for a liquid crystal display cell sealant as described in claim 6 or 7, wherein the alkylurea derivative is at least one selected from 3-(*p*-chlorophenyl)-1,1-dimethylurea, 3-(*o,p*-dichlorophenyl)-1,1-dimethylurea, 2,4-[bis(1,1-dimethylurea)]toluene and 2,6-[bis(1,1-dimethylurea)]toluene.

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15. The composition for a liquid crystal display cell sealant as described in claim 6 or 7, wherein the phosphazene compound is at least one compound represented by Formula (12):



wherein R<sup>a</sup> to R<sup>f</sup> each represent a hydrogen atom, a linear, branched or cyclic alkyl group having 1 to 10 carbon atoms or an aryl or aralkyl group having 6 to 10 carbon atoms, and all of them may be the same or different.

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16. A composition for a liquid crystal display cell  
sealant further comprising 1 to 15 mass parts of a  
conductive bead based on 100 mass parts of the  
composition as described in claim 6 or 7.

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17. A liquid crystal display element prepared by using  
the sealant for a liquid crystal display cell as  
described in any of claims 1 to 5.

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18. A liquid crystal display element obtained by using  
the composition for a liquid crystal display cell sealant  
as described in any of claims 6 to 16.

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19. A production process for a liquid crystal display  
element comprising any of TN liquid crystal, STN liquid  
crystal, ferrodielectric liquid crystal and anti-  
ferrodielectric liquid crystal, comprising the steps of:  
printing or dispenser-coating the composition for a  
liquid crystal display cell sealant as described in any  
of claims 6 to 16 on a bonding and sealing part of a  
glass-made or plastic-made substrate for a liquid crystal  
cell and precuring it at a temperature of 50 to 120°C,  
then adjusting the position and superposing the  
other paired substrate thereon to temporarily fix them,

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subjecting the paired substrates to hot cramping treatment at 80 to 200°C to bond and fix the above paired substrates in a homogeneous thickness falling in a range of 1 to 7  $\mu\text{m}$  to form a liquid crystal display cell, and

5 then charging a liquid crystal material into the above cell and sealing the injection port with a photocuring type liquid crystal sealant composition or a two-liquid type liquid crystal sealant composition.

- 10 20. A production process for a liquid crystal display element comprising any of TN liquid crystal, STN liquid crystal, ferrodielectric liquid crystal and anti-ferrodielectric liquid crystal, comprising the steps of:  
15 printing or dispenser-coating the composition for a liquid crystal display cell sealant as described in any of claims 6 to 16 on a bonding and sealing part of a glass-made or plastic-made substrate for a liquid crystal cell and precuring it at a temperature of 50 to 120°C,  
20 then putting dropwise the liquid crystal thereon and superposing the other paired substrate thereon so that air is not shut therein and adjusting the position to temporarily fix them,  
25 subjecting the paired substrates to hot cramping treatment at 80 to 150°C to bond and fix the above paired substrates in a homogeneous thickness falling in a range

of 1 to 7  $\mu\text{m}$ , and

then sealing the respiratory port with a photocuring type liquid crystal sealant composition or a two-liquid type liquid crystal sealant composition.

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21. A liquid crystal display element obtained by the production process for a liquid crystal display element as described in claim 19 or 20.

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